BLACK BOX®
NETWORK SERVICES

802.3af PoE Gigabit Injector, 1-Port

Exceeds the 802.3af standard.

Use with IP telephones, wireless access points, IP print servers, IP cameras, and Bluetooth® access points.

1. Specifications

Compliance: cUL/UL®; RoHS

Load (Maximum): 0.35 A

Regulation: Line and Load: 54–57 VDC under all conditions

Connectors: Data in: (1) RJ-45 (10/100/1000); Data/PoE out: (1) RJ-45 (10/100/1000); Power: (1) IEC 320 (3-pin)

Indicators: (3) LEDs: (1) ON, (1) CONNECT, (1) FAULT

Power: AC input voltage range: 90–264 VAC; AC input voltage rating: 100–240 VAC, 47–63 Hz; Output: 19.6 W at 56 VDC

Size: 1.4"H x 2.6"W x 5.5"D (1 x 6.6 x 14 cm)

Weight: 0.4 lb. (0.2 kg)

2. Overview

The LPJ001A-F is a high-powered Gigabit power injector that exceeds the IEEE 802.3af power standard. The injector provides up to 19.6 W of power.

Use the LPJ001A-F with IP telephones, wireless access points, IP print servers, IP cameras, and Bluetooth access points.
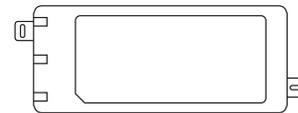
3. Setting Up Your Power Injector

NOTE: Use CAT5e or higher Ethernet cables (not included).

1. Using screws, affix the metal feet on the front and/or rear to a flat surface such as a table or wall. See Figure 1.
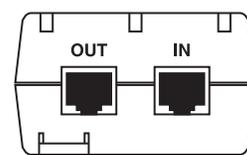
NOTE: The power injector should not use the weight of the Ethernet cables for support.
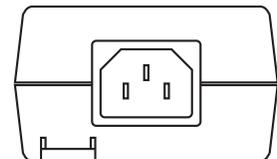
Insert a screw to secure the unit to a surface

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Figure 1. Location of metal feet on the power injector.

OUT   IN

Power and data out   Data in

Front panel.

IEC-320 power connector.

Back panel.

Figure 2. Ports on the power injector.

2. Connect the 3-pin IEC320 AC input connector to a power source. Power on the injector.

3. Using CAT5e or higher cable, connect the RJ-45 port on the injector labeled "IN" to your network switch. See Figures 2 and 3.

4. Connect the RJ-45 port labeled "OUT" on the injector over Ethernet cable to the powered device. See Figures 2 and 3.

5. The LEDs will light to diagnose the connection. See Tables 1 and 2.

4. Description of LED Functions

Table 1. LEDs and their functions.

LED	State	Function	Description
ON, CONNECT, FAULT LEDs	All three LEDS light	Power up	Upon power-up, all three LEDs will light for two seconds, as part of the self-test for the internal microprocessor software.
ON LED	Lights green after two seconds	DC output voltage available	After two seconds, the ON LED will light green, indicating that the DC output voltage is available for powering an 802.3af PoE compliant load.
CONNECT LED	Lights green	802.3af load is attached	This green LED lights when a compliant load is attached to the output RJ-45 connector.
	Blinking	802.3af load is not attached	If the load does not comply with 802.3af PoE standards, then the LEDs will blink a code indicating that the load was not detected. See Table 2 for code descriptions.
FAULT LED	Lights red	Overload or short circuit	If a fault, such as an overload or short circuit, occurs, then the red FAULT LED lights. See Table 2 for code descriptions.
	Lights red for two seconds, then goes off	Power supply is trying to re-detect a valid load	The red LED will light for two seconds and then go off as the power supply tries to re-detect a valid load. If a compliant 802.3af PoE load is NOT detected, the LED will indicate the problem as described in Table 2.

Table 2. Failure detection codes.

Code	Name	Description
1	Incorrect resistive signature	The green CONNECT and red FAULT LEDs blink three times.
2	Incorrect capacitive signature	The green ON LED blinks three times.
3	Incorrect V offset	The green CONNECT and green ON LEDs blink three times.
4	Unstable current measurement	The green ON LED blinks three times.
5	Low voltage sensed during detection (overload)	The red FAULT LED blinks three times.

NOTE: After the LEDs blink three times, the power injector will continue to try to detect a valid load. Until the correct load is applied, the LEDs will continue to blink. If an open circuit is connected to the output RJ-45 connector, then the LEDs will not blink but the power injector will continue to try to detect a valid load.